

**RI Drought Steering Committee  
Meeting Minutes  
September 14, 2005**

**1. CALL TO ORDER AND INTRODUCTIONS**

Mr. Robert Griffith, Member of the RI Water Resources Board, called the meeting to order at 9:05 a.m. on September 14, 2005. He welcomed members of the committee and asked attendees to introduce themselves (Attachment A). He recognized Ms. O'Keefe who has taken a lead role in preparing for today's meeting, pulling all of the material together.

**2. APPROVAL OF AUGUST 16, 2005 MEETING MINUTES**

Mr. Griffith asked for a motion to approve the August 16, 2005 meeting minutes. Mr. Eugene Pepper requested that his statement regarding groundwater areas be changed from "3-4 inches" to "3-4 feet." Mr. Henry Meyer previously submitted written corrections to Ms. O'Keefe, and these changes are reflected in the minutes. Mr. Griffith entertained and received a motion to approve the minutes as amended. The minutes were approved unanimously as amended.

**3. EVALUATION OF STATE AND LOCAL CONDITIONS**

Mr. Griffith initiated a discussion and evaluation of state and local conditions. He introduced Mr. Alan Dunham, Program Leader for Fire Weather, NOAA National Weather Service (NWS), who presented an overview on current conditions supported by short- and long-range forecasts. He noted Joe Dellicarpini, Senior Hydrologist, NWS, was not able to attend today's meeting.

Mr. Dunham reported the heavy rain received at the end of August (August 28-31) put Rhode Island in a positive condition after a fairly dry period. He noted Providence county precipitation was below normal with above average rainfall recorded in Washington and Kent counties (Attachment B). Two-Month precipitation totals reveal all counties above 65%. Worst case is Kent County at 79% with 5.6" and best shape is Washington County which is above 100%. The 3-Month precipitation totals show a little worse condition with Kent and Washington County below the 65% mark. The wet May, and below normal conditions of June and July, and heavy rainfall at the end of August was near-normal. Taking a look at the 6-month precipitation totals we are in good shape because of the wet spring with the lowest recording from Providence County at 88%. He stated a "watch warning" would be issued when precipitation level reached below 65% of normal.

Drought monitor conditions report show Rhode Island as "abnormally dry". Alan reported the Crop Moisture Index as of September 10, 2005 is "slightly dry/abnormally moist" but more dry than wet, from a fire perspective. The long-term Palmer Index is near normal for Rhode Island. The 3-Month Standardized Precipitation Index (SPI) shows a near normal condition while Connecticut is down. SPI is currently being adapted from Colorado to this region on a project being coordinated by Nicole Belk, Hydrologist, NWS. He noted the SPI is more representative than the average of what is considered "normal" which is biased toward higher values. The SPI the rainfall data is better represented using a gamma distribution, and is more responsive than the Palmer Index. The water values for Kingston (with historical data from the 1800s. starting from June, the 1-month SPI) was "-0.7"; at the end of July were down to "-1.54" for both the 1-month and 2-month; August ended up on the plus side.

Mr. Dunham reported on fire weather conditions and fuel moisture, stating there was a 9-10% fuel moisture index which is dependent on humidity. Rhode Island has not had a high humidity condition, and dependent on what happens within the next 3 days in terms of rainfall, we may enter another dry period so that the drier the fine fuels, the higher the likelihood of fire danger. Conditions are such that fuel materials are drying out which will allow for better burning. A fire index used by the Fire Service shows RI in the 400-500 range, and without rain, then RI will enter the higher range. In summary, fire conditions will continue to increase if there is no rainfall.

Mr. Dunham reviewed the 5-day precipitation forecast which is dependent on the direction taken by Hurricane Ophelia. There is wide variation in the forecasts so a prediction is not yet known. The 8-14-day outlook shows above normal temperature, and below normal precipitation with occasional cold fronts coming in to bring light showers. The 3-month outlook shows the “infamous equal chances.” He summarized his report by stating that RI is entering the critical time of recharge for RI, and studies going back to the ‘60’s show a dry October-November-December, has been a precursor to potential drought conditions for the spring and summer. On a larger scale, we see this larger winter pattern emerging in November-December. There is no guarantee of a drought but the continued lack of precipitation could set us up for a potential drought, but hopefully the winter recharge is coming. He referenced two websites where members could obtain additional information: [www.weather.gov.boston](http://www.weather.gov.boston) and [www.drought.noaa.gov](http://www.drought.noaa.gov). Members discussed the information.

Mr. Jim Campbell provided an update on Surface and Ground Water Condition using the US Geological Survey material provided in today’s handout. He reported the Surface Water reports are based on the 20 gages supported by the Board and RI DEM. Conditions are below normal for the month of August. The summary of drought conditions shows the above normal conditions in April and May, but conditions were lower by the end of July. We are now approaching 7Q10 conditions in several gages and drought and stream flow levels have continued to decrease. The Drought Region map is color coded with green showing normal, and red depicting below normal. In RI most drought regions were below normal, and this condition is continuing through September. Finally, the Richmond 600 gage is showing a continuing decline in water levels, and that is continuing unless we have more precipitation. He summarized his presentation by stating that unless additional precipitation is forthcoming, conditions will continue to deteriorate. Mr. Griffith thanked Mr. Campbell for the information.

Mr. Griffith continued the evaluation of state and local conditions by introducing Mr. Eugene, Pepper, Principal Environmental Planner, Division of Agriculture, RI Department of Environmental Management, and Mr. Al Bettencourt, Farm Bureau. Mr. Pepper reported conditions were the same from last month but that all farm pond requests have been permitted. He reported site reviews for new installations or assistance have been completed. He noted that the work completed in the 2001 has helped to facilitate the processing of current requests. He stated turf farms are maintaining and not irrigating as heavily as in the past, and fruit farms are noting smaller fruit as a result of decreased precipitation.

Mr. Al Bettencourt agreed the 3” of precipitation in later August helped a little but came too fast to be deeply absorbed so that we are dry again, and need more rain to be ok. Mr. Garabedian concurred with Al stating “what’s been suffered has been suffered and we have been assessing whether to convene the County Emergency Board to start the process for a disaster designation. A 30% designation in reduction of crop value is needed and whether or not that has been achieved needs to be assessed. If this occurs, low interest loans become available for a crop disaster program for losses. Sometimes this takes 2-3 years so right now we are taking reports.

Mr. Griffith proceeded with an assessment of drought conditions by region, and recognized Mike Russo, Providence Water Supply Board. Mr. Russo stated PWSB has a 75-year history of precipitation, and the August rain just decelerated the drought, and we feel we are not in a drought at this time. We continue to watch conditions. Mr. Griffith asked, and Mr. Russo concurred that the current level of the reservoir is about average for November as opposed to September. Mr. Henry Meyer, Kingston Water District, stated he concurred with the USGS presentation that the late August precipitation helped, but that stream levels are really back to the levels prior to that precipitation. He clarified drought has several meanings to different people. For example, farmers have had and are in a drought. The question is whether this drought is similar to 2002, or 1998 drought. Conditions are not similar and there are differences. We must maintain a “wait and see” attitude, and this should be the course for this year although this year is unique as different regions, even within the watershed like the Chipuxet, received different amounts of precipitation. This means on a statewide basis there is much variability which is the uniqueness of this “drought.” The turf farmers have been able to harvest their summer crop, and have put in the fall crop which must be irrigated to grow. Julia Fogue reported Newport capacity is at 69% total (island at 51%, mainland at 87%). We have been able to maintain this capacity on the land but we are beginning to experience water quality issues so we are moving from pond to pond, and mixing. Bill Harritos reported the wells were

somewhat below level but still above the 1999 drought levels. He noted Quonset Development Corporation does not experience seasonal change in demand levels. He asked if anyone else had information on regional or local conditions. There being no additional information, Mr. Griffith asked Ms. O'Keefe to provide an overview on drought levels.

#### **4. ACTION ITEM: DROUGHT LEVEL**

Ms. O'Keefe referred members to the meeting handouts for information on the drought indices. Per State Guide Plan 724, RI Drought Management Plan, there are 7 drought regions across the state. Drought indices include the Palmer Drought Index, Crop Moisture Index, Precipitation, Ground water, Stream flow and reservoir levels. The current drought phase is classified as "normal." To change the status of a drought phase, three out of the four major hydrologic indicators (Palmer Index, precipitation, stream flow, and ground water) must reach a designated threshold. Once the threshold is reached, the drought phase is increased, in this case, to a "drought advisory" phase.

#### **5. NEXT STEPS**

Mr. Griffith opened the meeting up for general discussion. Dr. Veeger stated it would be helpful to highlight on the table on the RI Drought Phases and Indices where we stand. Mr. Mariscal referred members to the 2-page handout entitled "RI Current Drought Conditions" noting Providence Water Supply Board has reported they have a year's supply of water while the farmers would love to have that amount of water so it becomes a question of where the water is located and who has access to it. He noted the different types of drought throughout the state. Ms. Liz Scott questioned the information provided on stream flow that described the condition as "normal" when, for example, the USGS stream flow information on the Blackstone which has reached 7Q10 levels several times. Mr. Campbell responded by stating it depends on how the data is reported. Reporting on a monthly basis can be normal while the latter part of a particular month may be below average. He agreed, for example, that the latter part of July was very dry. He noted there are many factors, especially in highly managed water, that affect stream flows. Mr. Rich Amirault referenced the Crop Moisture Index and Ground water conditions, both of which were "below normal" throughout the various regions. After discussion, it was agreed there are wide variations among regions but the change in drought conditions is done on a statewide level. The actions taken by the Board and the Governor's Office are defined in the Drought Management Plan handout, and include water conservation and raise the consciousness levels throughout the state that additional conservation steps are needed to conserve water. Mr. Henry Meyer stated his belief the time to raise awareness is during the winter months because by summer it is too late. If we anticipate a drought kicking in the following summer then we should educate people during the winter. He advised waiting one month to see if additional precipitation is forthcoming. Mr. Alan Dunham stated the Palmer and Crop Moisture Index this week closer to the normal phase. He stated in his opinion from a meteorological point of view the next month will be critical. The potential rainfall from hurricane Ophelia may bring sufficient rainfall but we just don't know. Mr. Gene Pepper recommended continued monitoring of conditions with a meeting scheduled early in October. He stated at this time it appears we meet only 1 of 3 threshold criteria, and a prudent course of action would be to wait and see. He noted the farmer's need for water will rapidly decrease, and the turf guys have harvested and replanted a second crop – and they do have an increased need for water at this time. We should evaluate conditions in early October before we take a position. Mr. Adelman concurred, stating the water suppliers are managing local water demand through restrictions but we will need another month of data prior to issuing a statewide advisory. Mr. O'Brien concurred, stating we should not move too quickly toward an "advisory" status until we have the data.

Mr. Ken Payne suggested using an aggressive approach on current conditions which are patchy and variable across the state. He noted it would be a disservice to those who are actually encountering problems if we don't provide some assistance. Monitoring is an appropriate public position at this time. Dr. Anne Veeger stated there is a lot of confusion on the part of the public on what a drought is. Careful language is needed to explain the difference between brown grass in your yard, and decreased stream flow and RI water levels. The public should understand RI is entering the critical seasons of recharge, and if we don't get the normal amount of precipitation in the coming months there will be a problem. From a

watershed and water supply viewpoint we are not in a drought, but for the homeowner who looks over his brown lawn, of course we are in a drought. We need to provide an information and education campaign.

Mr. Griffith summarized by stating he did not see a stampede to declare a drought advisory. Therefore, he accepted Mr. Payne's comments as a motion, and Dr. Veeger's comments as a second to remain at the current "normal" level, educate the public on the potential conditions, aggressively monitor conditions through the next month and reconvene the Steering Committee in a month's time, date to be determined after the monthly reports are available. Motion carried unanimously.

## 5. ADJOURNMENT

The meeting adjourned at 9:55 a.m. The next meeting is scheduled for Wednesday, October 12, 2005, 9 a.m., RI Water Resources Board Conference Room, 100 North Main St., 5<sup>th</sup> floor, Providence RI

Respectfully submitted,

Beverly O'Keefe, Supervising Planner  
RI Water Resources Board  
(401) 222-5732

Attachment A: September 14, 2005 Drought Steering Committee Meeting Attendees: Forgue, J., Dunham, A., Bettencourt, A., O'Brien, J., Campbell, J., Veeger, A., Harritos, W., Swanson, R, Pepper, E., Scott, E., Amirault, R, M. Adelman, M., Meyer, H., Griffith, R., Mariscal, J., Payne, K., O'Keefe, b., Crawley, K., Russo, M., Garbedian, J.,

Attachment B: RI Drought Regions

**Figure 724-(4) Rhode Island Drought Regions**

